

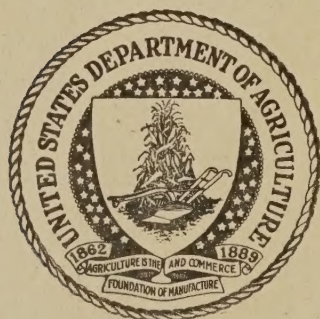
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.9
En37F
1938a

Reserve

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



Reserve
BOOK NUMBER **1.9**
En37F
1938a
629926

A CLASSIFIED LIST OF FERTILIZER DISTRIBUTING MACHINES AND DEVICES ON THE MARKET - 1936

Compiled by

G.A. Cumings, Agricultural Engineer

This partial list of machines and general specifications was taken from such manufacturers' literature and other records as could be obtained by the Bureau of Agricultural Engineering, United States Department of Agriculture, Washington, D.C.

The mention of specific machines and manufacturers implies no particular endorsement by the Department of Agriculture as to the price and quality of the equipment listed.

Note: (a) indicates that the specifications were not given in the records on file.

Note: The address of each manufacturer listed is given on page 9.

----- GENERAL CLASSES OF FERTILIZER DISTRIBUTING MACHINES LISTED -----
Distributing machines for fertilizer only:

1. Wheelless distributing equipment - carried and hand operated
2. Broadcast distributors, wheel type - pushed by hand
3. Broadcast distributors and drills, wheel type - horse drawn
4. Broadcast distributors and drills, wheel type - tractor and truck drawn
5. Broadcast distributors, endgate type
6. Row distributors - pushed by hand
7. One-row distributors - horse drawn
8. Two-row distributors
9. Three or more-row distributors

Fertilizer distributors combined with other machines as follows:

10. Small vegetable seeders
11. One-row walking type planters - one horse

----- FERTILIZER DISTRIBUTING MACHINES LISTED -----
Fertilizer distributors combined with other machines (continued).

12. Rigid-frame two-wheel, riding type planters and listers - horse drawn
13. Two-row adjustable runner frame planters (corn belt type) - horse drawn
14. Tractor planting equipment
15. Beet and bean drills
16. Potato planters
17. Grain drills
18. Transplanters
19. Cultivators and harrows
20. Disk harrows
21. Plows
22. Manure spreaders
23. Watering and irrigation systems

1. WHEELLESS DISTRIBUTING EQUIPMENT --- CARRIED AND HAND OPERATED

Manufacturer	Trade name or catalog No.	General type of machine	Size or area covered	General type of fertilizer dispenser	Rates in lbs/A	Crops or conditions intended for	Placement of the fertilizer in the soil
Acer and Whedon, Inc	A & W Hinger	Vertical cylinder	1 hill	Cone valve, gravity feed	1 to 4 ozs/hill	Plants or hills	Ring 8" Dia. on surface around hill
Acme Line Mfg. Co.	Acme 308	Hand corn planter Attach.	1 hill	(a)	(a)	Corn, etc	Spot at side of hill level with seed
do	Acme 315	Bucket type	1 spot	Acillator	(a)	Gen'l. small areas	Circular spot on surface
Bradley, David, Mfg. Works	No. 6257	Hand corn planter Attach.	1 hill	(a)	(a)	Corn, etc	Spot in hill
Browning and Son	Circle A, B, C	Container, hand carried	1 hill	Bell plunger & valve	Max. 1 lb/hill	Plants or hills	Ring 8" Dia. on surface around plant
do	Circle E	Container, hand carried	1 hill	Bell plunger & valve	Max. 1 lb/hill	Plants or hills	Band 3" by 12" on surface at side of plant
Cyclone Seeder Co.	Noc-out	Shoulder sack with tube	1 spot	Knocker	(a)	Gardens, etc.	Spot on surface
do	Dual purpose	Broadcast, centrifugal	16 ft.	Gravity & plate-fan scatterer	100 to 300	Granular fertilizer	Broadcast on surface
do	Gem	Hand corn planter Attach.	1 hill	(a)	(a)	Corn, etc.	Spot in hill
Eagle Machine Co.	Choon	Broadcast, centrifugal	(a)	Gravity, Vertical rotating	(a)	Granular fertilizer	Broadcast on surface
Goodell Co.	Perfection	Vertical cylinder	1 hill	Plunger	50 to 350	Plants or hills	Ring on surface around hill
Meronek Mfg. Co.	Little Wonder	Jabber type	1 hill	(a)	80 to 480	Plants or hills	Spot at each side of row at the hill
Plant Food Appliance Co.	Economy	Vertical cylinder	1 hill	Oscillating cell plate	(a)	Plants or hills	Ring 11" Dia. on surface around hill
Waterman, Adolph, C.							

2. BROADCAST DISTRIBUTORS, WHEEL TYPE -- PUSHED BY HAND

Manufacturer	Trade name or catalog No.	General type of machine	Size or area covered	General type of fertilizer dispenser	Rate in lbs/A	Crops or conditions intended for	Placement of the fertilizer in the soil
Allen, S. L. & Co. Inc.	Planet Jr 220	Wheelbarrow	12 - 22"	Knocker	200 to 2000	Row crops	Broadcast or band on surface through tubes, adj.
do	Planet Jr 235	Scatter att. on 220 Distrib	36"	Knocker	200 to 2000	Golf greens, etc.	Broadcast on surface
do	Planet Jr 210	Cart	14"	Agitator-adj. openings	(a)	Lawns, etc.	Broadcast on surface
American Cyanamid Co.	Aero	Hopper plane only	As built	Gravity-adj. openings	200 to 500	Granular fert.	Broadcast or bands on surface, control openings
Bradley, David, Mfg. Works	6156 & 6157	Cart	18 & 30"	Rotating blades	(a)	Lawns, etc.	Broadcast on surface
do	6155	Cart	16"	Rotating agitator	(a)	Lawns, etc.	Broadcast on surface
Campbell-Hausfeld Co.	Campbell	Cart	30"	Wobble screw agitator	(a)	Lawns, etc.	Broadcast on surface
do	Paragon	Cart	36"	(a)	(a)	Lawns, etc.	Broadcast on surface
do	Truckers P. 52	Wheelbarrow	Max. 36"	Vibrator	(a)	Row crops	Broadcast or band on surface thru adj. tubes
Eastern States Farmers Exch.	Eastern states	Wheelbarrow	10 ft.	Double chain	(a)	Gen'l	Broadcast on surface
Farquhar, A. B., Co. Ltd.	McPhorter 21	Wheelbarrow	1 row width	Endless belt	0 to 2500	Gen'l	Broadcast or band on surface thru 4 adj. tubes
Footie, J. E., Foundry Co.	Panama	Cart	17 to 30"	(a)	(a)	Lawns, etc.	Broadcast on surface
Hampshire Implement Co.	Stevens	Cart	22 & 34"	Spiral agitator	(a)	Lawns, etc.	Broadcast on surface
do	Mo's 500	Cart	21"	Rotating agitator	(a)	Lawns, etc.	Broadcast on surface
do	Mo's 505	Cart	16"	Spiral agitator	(a)	Lawns, etc.	Broadcast on surface
Hollen Co.	Junior	Cart, centrifugal	12 ft.	Rotating agitator	(a)	Gen'l	Broadcast on surface
Masters Planter Co.	Masters(three)	Cart	16, 24, 36"	Rotating agitator	(a)	Lawns, etc.	Broadcast on surface
Pender Mfg. & Supply Co.	So-rite, 3HM	Wheelbarrow	Max 24"	Reel agitator	100 to 3000	Row crops	Broadcast or band on surface thru adj. tubes
Root Mfg. Co.	All purpose	Cart	36"	Triple roll agitator	(a)	Lawns, etc.	Broadcast on surface
Salem Tool Co.	Hoffman(three)	Cart	14, 18, 30"	Reel agitator	120 to 5800	Lawns, etc.	Broadcast on surface
do	Sa en(several)	Cart	2 to 6 ft.	Reel agitator	wide range	Parks, etc.	Broadcast on surface
Smith Agri. Chemical Co.	Sacco (two)	Cart	18 & 30"	Rotating agitator	(a)	Lawns, etc.	Broadcast on surface
Standard Equipment Co.	Hawks	Cart	20	Triple cylinder	(a)	Lawns, etc.	Broadcast on surface
Swift and Co.	Vigoro	Cart	14 16 & 24"	(a)	(a)	Lawns, etc.	Broadcast on surface
Tennessee Corp.	Loma	Cart	14, 16 & 30"	(a)	(a)	Lawns, etc.	Broadcast on surface
Thompson, O. E., & Sons	Lavette(six)	Cart	14 to 36"	(a)	(a)	Lawns, etc.	Broadcast or bands on surface (tubes removable)
do	Thompson 108	Wheelbarrow	30"	(a)	(a)	Row crops	Broadcast on surface
do	Royal 210	Wheelbarrow	6 ft.	(a)	(a)	Gen'l	Broadcast on surface
do	Fairway 106	Wheelbarrow	10 ft.	(a)	(a)	Golf courses, etc.	Broadcast on surface
do	Thompson 112, 110	Wheelbarrow	3 & 6 ft.	Vibrator	50 to 125	Golf courses, etc.	Broadcast on surface
do	Thompson 208	Cart	3 & 6 ft.	Vibrator	455 to 2000	Golf courses, etc.	Broadcast on surface
Todd Co., Inc.	Todd 0	Wheelbarrow	1 row width	Vibrating pan	435 to 4400	Parks, etc.	Broadcast on surface

3. BROADCAST DISTRIBUTORS AND DRILLS, REEL TYPE HORSE DRAWN

Manufacturer	Trade name or catalog No.	General type of machine	Size or area covered	General type of fertilizer dispenser	Rate in lbs/A	Crops or conditions intended for	Placement of the fertilizer in the soil
Bradley, David, Mfg. Wks	1133	2-horse	8 ft.	Paddle agitator	250 Min.	General	Broadcast or bands on surface
do	1134	1-horse	6 ft.	Paddle agitator	250 Min.	General	Broadcast or bands on surface
Caledonia Bean Harv. Wks	Caledonia	2-horse	5 to 10 ft.	Rotating agitator	200 to 4000	Gen'l, lime	Broadcast on surface
Grown Mfg. Co.	Grown	2-horse	8 ft.	Rotating wing agitator	(a)	Gen'l, lime	Broadcast on surface
Farm Tools, Inc.	Feoria	2-horse	6, 14, 20 tube	Star wheel with adj gate	(a)	Onions, Veg. crops	Bands in furrows 7 or 12" apart
do	New Peoria	2-horse	8 ft.	Finger wheel	(a)	General	Broadcast on surface
Hampshire Implement Co.	Stevens 5	1-horse	6 ft.	Reel agitator	100 to 6000	General	Broadcast on surface
do	Stevens 8	2-horse	8 ft.	Reel agitator	500 to 8000	General	Broadcast on surface
do	Universal	1 and 2-horse	24 to 5 ft.	Rotating agitator	500 to 8000	General	Broadcast on surface
Haines, W. D.	Junior	Cart, centrifugal	12 ft.	Rotating agitator	Wide range	General	Broadcast or bands on surface
Hollen Co.	McG-Deering	Cart 1 and 2-horse	7 and 9 ft.	Rotating agitator	(a)	General	Broadcast on surface
International Harv. Co.	McG-Deering	Cart 2-horse	8 ft.	Rotating wing agitator	10 to 2350	General	Broadcast on surface
Leroy Flow Co.	L-Acme 6, 8, 10	Cart 1	5 and 8 ft.	Rotating wing agitator	150 to 13000	General, lime	Broadcast on surface
Ohio Cultivator Co.	Moupar 41	2-horse	5 ft. and 8 ft.	Rotating wing agitator	Wide range	General, lime	Broadcast on surface
do	Thomas	Cart horse & tractor	4 and 5 ft.	Reel agitator	100 to 5000	General	Broadcast on surface
Oliver Farm Equip Co.	Superior 1	2-horse	9 ft.	Finger wheel	(a)	Orange grove	Broadcast in bands in furrows 7" apart
do	Superior 16	2-horse	8 ft.	Rotating wing agitator	45 to 5400	General	Broadcast on surface
Ontario Drill Co.	Ontario B	Cart	6 to 12 tube	Finger wheel	300 to 6000	General	Broadcast on surface
do	Ontario H	Cart	6 and 8 ft.	Rotating wing agitator	40 to 2000	General	Broadcast or bands on surface thru adj. tubes
Pender Mfg. & Supply Co.	So-rite(Series)	Cart 1 and 2-horse	2 to 10 ft.	Rotating wing agitator	Wide range	General	Broadcast on surface
Self Mfg. Co.	Self	Cart 2-horse	8 and 10 ft.	Rotating wing agitator	200 to 5000	General	Broadcast on surface
Todd Co., Inc.	Todd O 7, 8, 15	Cart 1-horse	1 to 8 ft.	Vibrating pan	(a)	Gen'l, phosphate	Broadcast on surface
Van Brunt Mfg. Co (Deore)	Van Brunt H	Cart, horse, tractor, truck	8 ft.	Rotating wing agitator	200 to 8000	General	Broadcast or bands on surface thru adj. tubes
do	Van Brunt A	Cart, horse, tractor, truck	8 ft.	Star wheel with adj. gate	43 to 4950	General, lime & P.	Broadcast on surface
Wade, R. M., Co.	Multnomah	Cart 1 and 2-horse	6 and 10 ft.	Rotating agitator	35 to 6000	General	Broadcast on surface

4. BROADCAST DISTRIBUTORS AND DRILLS, WHEEL TYPE - TRACTOR AND TRUCK DRAWN

Manufacturer	Trade name or catalog No.	General type of machine	Size or area covered	General type of fertilizer dispenser	Rates in lbs/A	Crops or conditions for which intended	Placement of the fertilizer in the soil
Burch Corporation	Master	Cart, trailer for truck	about 20 ft	(a) & plate-fan scatterers	(a)	Line materials	Broadcast on surface
Greenville Mfg. Works	AA Grits	Cart, tractor	8 ft	Roller	Wide range	Line materials	Broadcast on surface
Haines, W.D.	Universal	Cart, tractor	10 & 12 ft	Rotating agitator	Wide range	General	Broadcast or bands on surface
International Harv. Co.	McC-Deering	Cart, tractor	7 & 9 ft	Reciprocating feed plates	10 to 2500	General, lime	Broadcast on surface
do	McC-Deering	Cart, tractor	8 ft	Rotating wing agitator	168 to 15000	General, lime	Broadcast on surface
Peoria Steel & Wire Co.	Paramount	Cart, trailer, centrifugal	15 - 18 ft	Rotating agl. & plate-fan scatterers	100 to 8000	General, lime	Broadcast on surface
Portable Elevator Mfg. Co.	Little Giant	Trailer, centrifugal	16 ft	Rotating agl. & plate-fan scatterers	100 to 8000	Parks, etc.	Broadcast on surface
Thompson, O.E., & Sons	Fairway 915	Cart, truck or tractor	9 ft	(a)	(a)	General, lime	Broadcast on surface
Van Brunt Mfg. Co. (Deere)	Van Brunt H	Cart, horse, tractor, truck	8 ft	Rotating wing agitator feed	200 to 8000	General, lime	Broadcast on surface
do	Van Brunt A	Ca t, horse, tractor, truck	8 ft	Star wheel with adj gate	48 to 4950	General, lime	Broadcast on surface

5. BROADCAST DISTRIBUTORS, ENDGATE TYPE

A-C Manufacturing Co.	A-C	Endgate, centrifugal	16 to 25 ft.	Endless chain, & 2 plate-fan scatterers	500 to 800	General	Broadcast on surface
American Cyanamid Co.	Aero	Hopper pl. only	As built	Gravity-adjustable openings	200 to 500	Gen'l Granular F.	Broadcast or bands on surface thru selected openings
Bradley, David Mfg. Works	1159	Trailer, centrifugal	(a)	Agitator & 2 plate-fan scatterers	(a)	General	Broadcast on surface
do	1153	Endgate, centrifugal	(a)	Worm & 2 plate-fan scatterers	150 Min.	General	Broadcast on surface
Farm Tools, Inc.	Patria	Endgate, centrifugal	20 ft.	(a) & 2 plate-fan scatterers	(a)	General	Broadcast on surface
Holten Co.	Duplex	Endgate, centrifugal	20 ft.	Augur & 2 plate-fan scatterers	75 to 10000	General	Broadcast on surface
do	Illinois	Endgate, centrifugal	20 ft.	Augur & 1 plate-fan scatterer	100 to 10000	General	Broadcast on surface
International Harv. Co.	McC-Deering	Endgate, centrifugal	15 ft.	Agitator & 2 plate-fan scatterers	250 to 4400	General, lime	Broadcast on surface
New Way Spreader Co.	New Way	Endgate, centrifugal	(a)	(a)	(a)	General	Broadcast on surface
Portable Elevator Mfg. Co.	Little Giant	Trailer, centrifugal	16 ft.	Rotating agl. & 2 plate-fan scatterers	100 to 8000	General, lime	Broadcast on surface
Red Cross Mfg. Co.	Gross	Endgate, centrifugal	20 ft.	Screw & 2 plate-fan scatterers	150 to 10000	General, lime	Broadcast on surface
Ruhm Phosphates & Chem Co.	Ruhm	Trough hopper	10 ft.	Vibrator	100 to 3000	General	Broadcast on surface

6. ROW DISTRIBUTORS - PUSHED BY HAND

Allen S.L. & Co. Inc.	Planet Jr 220	Wheelbarrow, hand & horse	1 row	Knocker	200 to 2000	Row crops	Band or broadcast on surface thru adj. tubes
Cole Mfg. Co.	Truckers F-52	Wheelbarrow, hand & horse	1 row	Vibrator	(a)	Row crops	Band or broadcast on surface thru adj. tubes
Ellie-Keystone Agri. Wks.	Iron Age 323	Two wheel	1 row	Rotating plate & descending scraper	(a)	Vegetable crops	Band or broadcast on surface thru adj. tubes
Farquhar, A.B., Co., Ltd.	McWhorter 21	Wheelbarrow	1 row	Endless belt	0 to 2500	Row crops	Band or broadcast on surface thru adj. tubes
Fender Mfg. & Supply Co.	So-rite 2HM	Wheelbarrow	1 row	Reel agitator	100 to 3000	Row crops	Band or broadcast on surface thru adj. tubes
Thompson, O.E., & Sons	Thompson 108	Wheelbarrow	1 row	(a)	(a)	Gardens, lawns	Band or broadcast on surface, tubes removable
Todd Co., Inc.	Todd 0	Wheelbarrow	1 row	Vibrating pan	Wide range	Row crops	Band or broadcast on surface thru adj. tubes

7. ONE-ROW DISTRIBUTORS - HORSE DRAWN

Allen, S.L. & Co. Inc.	Planet Jr 220	Walking, 1 front wheel, 1 horse	1 row	Knocker	200 to 2000	Row crops	5" band in open furrow thru adj. tubes
Avery, E.F., & Sons Co.	Pet Guano	Walking, 1 rear wheel, 1 horse	1 row	Rotating agitator	(a)	Row crops	4" band in shovel furrow 0 to 8" deep
do	(Knocker, Knock-out K)	Walking, 1 rear wheel, 1 horse	1 row	Knocker hopper	(a)	Row crops	4" band in shovel furrow 0 to 8" deep
do	Vibrator 1	Walking, 1 rear wheel, 1 horse	1 row	Vibrating open-end pan	(a)	Row crops	4" band in shovel furrow 0 to 8" deep
do	Vibrator 2	Walking, 1 front wheel, 1 horse	1 row	Vibrating open-end pan	(a)	Row crops	Band on surface or in open furrow and covered
do	Sugarland	Riding, cart, 2 horse	2 horse	Rotating plate	(a)	Row crops	Band on surface each side of row (for sugar cane)
Blount Flow Works	Blount 0 & 8	Walking, 1 rear wheel, 1 horse	1 row	Rotating agitator	(a)	Row crops	Band in shovel furrow, depth adj.
do	Blount 1 & 9	Walking, 1 rear wheel, 1 horse	1 row	(1)Knocker Hop. (9)Vibrating pan	(a)	Row crops	Band in shovel furrow, depth adj.
Bluse, John	(Hex, 11,12,13,14,21,22,23, & 24)	Walking, 1 front wheel, 1 horse	1 row	Tapered screw	(a)	Row crops	1 or 2 bands in open furrow - blade, shovel, or disk
do	Comet No. 15	Walking, 1 front wheel, 1 horse	1 row	Rotating agitator	(a)	Row crops	Band in open furrow and covered
do	No. 30	Walking, 1 rear wheel, 1 horse	1 row	Tapered screw	150 to 700	Row crops	Band in shovel furrow
do	Sassy	Walking, 1 rear wheel, 1 horse	1 row	Knocker	(a)	Row crops	Band in shovel furrow, depth adj.
Camp, E.N., & Sons Co.	#21 Hop. for R50 Pl.	Walking, 1 rear wheel, 1 horse	1 row	(a)	(a)	Row crops	Band in furrow
Case, J.I., Co.	Cole 20	Walking, 1 rear wheel, 1 horse	1 row	(a)	Max. 1000	Row crops	Band in shovel furrow, depth adj.
Cole Mfg. Co.	Cole 21	Walking, 1 rear wheel, 1 horse	1 row	Knocker hopper	(a)	Row crops	Band in shovel furrow, depth adj.
do	Cole 22 & 27	Walking, 1 front wheel, 1 horse	1 row	(a)	Max. 1500	Row crops	Wide band in open furrow and covered
do	Cole 23	Walking, 1 front wheel, 1 horse	1 row	(a)	(a)	Row crops	Wide band in open furrow and covered
do	Cole 24	Walking, 1 front wheel, 1 horse	1 row	(a)	(a)	Row crops	Wide band in open furrow and covered
do	Cole 25	Walking, 1 rear wheel, 1 horse	1 row	Rotating pan with plow	(a)	Row crops	Wide band in shovel furrow, depth adj.
do	Cole 28	Walking, 1 rear wheel, 1 horse	1 row	(a)	(a)	Row crops	Wide band in open furrow and covered
do	Vibra-knock 29	Walking, 1 rear wheel, 1 horse	1 row	Vibrating hopper bottom	(a)	Row crops	Wide band in open furrow and covered
do	accurat, measure No. 48	Walking, 1 rear wheel, 1 horse	1 row	(a)	(a)	Row crops	Wide band in open furrow and covered
do	Circle knock 50	Walking, 1 rear wheel, 1 horse	1 row	Rotating double plate	(a)	Row crops	Band in shovel furrow, depth adj.
do	Truckers friend 52	Walking, 1 front wheel, 1 horse	1 row	Knocker(Oscill. dishd plate)	(a)	Row crops	Band in shovel furrow, depth adj.
do	Cole 60	Walking, 1 front wheel, 1 horse	1 row	Vibrator	Max. 2500	Row crops	Wide band in open furrow and covered
do	Cole 66	Walking, bedding disks, 1 horse	1 row	Rotating dishd plate	(a)	Row crops	Band in open furrow or Broadcast Max. 36" on surface
do	(a)	Walking, 1 rear wheel, 1 horse	1 row	Rotating cyl. - top delivery	Max. 3000	Row crops	Band on surface and bedded on
do	(a)	Walking, 1 front wheel, 1 horse	1 row	Vibrating pan	30 to 540	Row crops	Band in shovel furrow, depth adj.
do	(a)	Walking, 1 front wheel, 1 horse	1 row	(a)	Wide range	Row crops	Two bands 8" apart in furrows and bedded on

(Continued on next page)

7. ONE-ROW DISTRIBUTORS - HORSE DRAWN (continued)

Manufacturer	Trade name or catalog No.	General type of machine	General type of fertilizer dispenser	Rates in lbs/A	Crops	Placement of the fertilizer in the soil
Covington, W. F.	Double Stream	Walking, 1 rear wheel, 1 horse	Knocker, double drive	(a)	Row Crops	Two bands 5" apart deposited behind 14" sweep
Eureka Mower Co.	Eureka 140	Walking, 3 wheel, 1 horse	Twin screw	300 to 4500	Row Crops	Either 2 bands or mixed with soil in row
do	Eureka 171	Riding, 2 wheel, 2 horse	Endless belt	300 to 4500	Row Crops	Either 2 bands or mixed with soil in row
Farquhar, A.B., Co., Ltd.	Iron Age 471	Riding, 2 wheel, 1 horse	Endless belt	300 to 3750	Row Crops	Two bands 6" apart and bedded on
do	McPhorter 11	Walking, 1 rear wheel, 1 horse	Rotating wing agitator	(a)	Row Crops	Bands on surface or in open furrow thru adj. tubes
Gantt Mfg. Co.	Gantt 1	Walking, 1 rear wheel, 1 horse	Rotating wing agitator	100 to 1000	Row Crops	Band in shovel furrow, depth adj.
do	Gantt 2	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Gantt 3	Walking, 1 rear wheel, 1 horse	Vibrating open-end pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Gantt 4	Walking, 1 rear wheel, 1 horse	Knocker	100 to 2000	Row Crops	Band in open furrow and covered
do	Gantt 6	Walking, 1 rear wheel, 1 horse	Rotating agitator	Wide range	Row Crops	Band in open furrow and covered
Hains, W. D.	Universal	Walking, 1 front wheel, 1 horse	Knocker	(a)	Row Crops	Two bands in rows mixed with soil in row
Hardy and Newsum	Perfection	Walking, 1 front wheel, 1 horse	Rotating agitator	100 to 2000	Row Crops	Band in shovel furrow, depth adj.
Harriman Mfg. Co.	Roanoke	Walking, 1 rear wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in open furrow and covered
Harrington Mfg. Co.	McC-Deering 2	Walking, 1 front wheel, 1 horse	Rotating agitator	100 to 2000	Row Crops	Band in shovel furrow, depth adj.
International Harv. Co.	McC-Deering 10	Walking, 1 rear wheel, 1 horse	Rotating agitator	(a)	Row Crops	Band in shovel furrow, depth adj.
Kelly G.A., Flow Co.	Kelly 1	Walking, 1 rear wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Staker 8	Walking, 1 rear wheel, 1 horse	Rotating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Kelly 711	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Boss & Dandy	Walking, 1 rear wheel, 1 horse	Knocker	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Pearson 142, Ga.	Cracker 2 & 3 and Ga. Boy 5	Rotating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
King Flow Co.	do	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Ga. Cracker 1	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	King Vibrator	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	King 24	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	EP Big Boy	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
Lillianston Implement Co.	Lillianston	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
McKay, John A., Mfg. Co.	1-Reg. 1-A, & 3	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 1	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 2	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 2A	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 4	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 5	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 6 & 7	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 8	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 9	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	No. 10	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
Oliver Farm Equip. Sales Co.	Superior 3	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
Pender Mfg. & Supply Co.	So-rite	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
Southern Flow Co. (Columbus, Ga.)	Victory, Muscogee	Walking, 1 front wheel, 1 horse	Vibrating pan	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Georgia	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Camp	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Giant	Walking, 1 rear wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
Southern Flow Co. (Dallas, Tex.)	Ledbetter 324	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
Syracuse Chilled Flow Co. (Deere)	Hoover	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
Todd Co., Inc.	Todd 3	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
do	Todd 5	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
Wayne Agricultural Works, Inc.	Wayne	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
White's, S.R., Sons, Inc.	Favorite	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.
Whiteburat, R.W. Mfg. Corp.	K P	Walking, 1 front wheel, 1 horse	Knocker hopper	(a)	Row Crops	Band in shovel furrow, depth adj.

8. TWO-ROW DISTRIBUTORS

Manufacturer	Trade name or catalog No.	General type of machine	General type of fertilizer dispenser	Rates in lbs/A	Crops	Placement of the fertilizer in the soil
American Cyanamid Co.	Miller	Cart, 2 horse	Rotating vertical spider	50 to 500	Widely spaced rows	Band on surface or in open furrows
Eureka Mower Co.	Eureka 172	Cart, 2 horse	Twin screw	300 to 4500	Widely spaced rows	Either 2 bands or mixed with soil in row
Farquhar, A.B., Co., Ltd.	McPhorter 12A13	Cart, 1 horse	Endless belt	200 to 2000	Row crops	On surface or in open furrows thru adj. tubes
Haines, W. D.	Universal	Cart, 1 and 2 horse	Rotating agitator	Wide range	Row crops	Band or bedded on surface
International Harvester Co.	Bedder F-1	Tractor mounted	Rotating pan & adj. plows	0 to 3000	Row crops	Band and bedded on
Pender Mfg. & Supply Co.	So-rite	Cart, 1 horse	Reel agitator	200 to 5000	Row crops	Bands on surface thru tubes spaced as desired
Syracuse Chilled Flow Co. (Deere)	Hoover	Cart, horse or tractor	Rotating plate with deflector	75 to 3400	Row crops, potatoes	Two bands and bedded on
Todd Co. Inc.	Todd 8	Cart, 1 horse	Vibrating pan	(a)	Row crops	Bands in open furrows thru adj. tubes

9. THREE OR MORE-ROW DISTRIBUTORS

Manufacturer	Trade name or catalog No.	General type of Machine	Size, No. of Rows	General type of fertilizer dispenser	Rates in lbs/A	Crops or Conditions for which intended	Placement of the fertilizer in the soil
Burdin Mower Co.	Eureka 173	2 horse	3 row	Twin screw	300 to 4500	Widely spaced rows	Either 2 bands or mixed with soil in row
Farquhar, A.B., Co., Ltd.	McWhorter 1344	1 and 2 horse	3 & more	Endless belt	Wide range	Row crops	Bands in open furrows thru adj. tubes
Gaines, W. D.	Universal	1 and 2 horse	3 & more	Rotating agitator	Wide range	Row crops	Bands on surface, tubes spaced as desired
International Harvester Co.	MA-57	Tractor mounted	4 row	Rotating dish plate	Max. 800	Cotton, land beaded	Band and beaded on
Ontario Drill Co.	Ontario B	2 horse	3 & more	Finger wheel	40 to 2000	Row crops	Bands on surface thru adj. tubes
Pender Mfg. & Supply Co.	So-Rite	1 and 2 horse	3 & more	Reel agitator	200 to 5000	Row crops	Bands on surface, tubes spaced as desired
Todd Co., Inc.	Todd 7 & 15	1 horse	3 & more	Vibrating pan	(a)	Row crops	Bands on surface, tubes spaced as desired

10. SMALL VEGETABLE SEEDERS COMBINED WITH FERTILIZER DISTRIBUTORS

Allen, S.I. & Co. Inc.	Planet Jr. 320	1 front, 1 rear wheel, hand oper.	1 row	Knocker-oscill. scraper	100 to 1000	Vegetable crops	Band 5" to each side or in furrow with seed
do	Iron King 45	1 front, 1 rear wheel, hand oper.	1 row	(a)	(a)	Vegetable crops	Band under seed
Ellis-Keystone Agricultural Mks	Iron Age 322	2 wheel, hand or horse	1 row	Rotating plate, descending	(a)	Vegetable crops	Band adj. from 0 to 3" to each side of row
Gilson Bolens Mfg. Co.	DE-274, 275, 276	Garden tractor attachment	3 row	(a)	(a)	Vegetable crops	Band either to each side or in row
Marvel	Marvel	1 front wheel, hand or horse	1 row	Vertical feed wheel	80 to 2500	Vegetable crops	Hill or drill, 0 to 2.5" to each side, or in row
Sears Roebuck & Co.	Columbia	1 front, 1 rear wheel, hand oper.	1 row	Cone feed	(a)	Vegetable crops	(a)

11. ONE-ROW WALKING TYPE PLANTERS COMBINED WITH FERTILIZER DISTRIBUTORS - ONE HORSE

Avery, B.F. & Sons, Inc.	Shawnee & Dixie	1 front wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Mixed with soil above seed, deposited - front of seed shoe
do	Boatall	1 rear wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Spot 2.5" behind seed hill in same furrow
do	New Union	2 wheel	Rotating plate	(a)	Corn, beans, etc.	Drilled, band directly over seed
Blount Plow Works	Terrace King	1 rear wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Drilled, (a)
Bradley	Bradley 453	1 rear wheel	Star wheel & agitator	(a)	Corn, beans, etc.	Drilled in furrow above seed
do	Bradley	(a)	Star wheel & agitator	(a)	Corn, beans, etc.	Drilled in furrow directly above seed
Campbell 111	Campbell 111	1 front wheel	Knocker	(a)	Cotton, corn, etc.	Drilled in furrow directly above seed
47 Hop. on R50 Pl.	47 Hop. on R50 Pl.	1 front wheel	Knocker	(a)	Cotton, corn, etc.	Drilled in furrow with seed
62-R & 62-S	62-R & 62-S	1 front wheel	Knocker	(a)	Cotton, corn, etc.	Drilled in row
48 Hop. on S51 Pl.	48 Hop. on S51 Pl.	2 wheel	Knocker	(a)	Cotton, corn, etc.	Drilled, band each side near soil surface
do	41	1 rear wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Drilled, in row
do	Cole 3 & 4	2 wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Drilled, (a)
do	Cole 7 & 8	2 wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Drilled, (a)
do	Cole 10 & 14	1 rear wheel, Sw. beam	Rotating pan with plow	(a)	Peanuts, row crops	Drilled, (a)
do	Cole 12 & 16	1 rear wheel	Rotating pan with plow	(a)	Corn, beans, etc.	Drilled, (a)
do	(for planters 12, 16, & 41)	Disc Attachment	-----	(a)	Corn, beans, etc.	Band 2.5" to one side of row - depth adjustable
Outaway Harrow Co.	Clark	1 rear wheel	Rotating pan with plow	(a)	Corn, beans, etc.	Hilled or drilled, band at each side of row on seed level
Deere & Mansur Works	John Deere 108	1 front wheel	Rotating pan with plow	(a)	Cotton, corn, etc.	Drilled, band 1" wide, 1" to 2" directly under seed
do	John Deere 227	1 rear wheel	Rotating plate with deflector	50 to 250	Corn, beans, etc.	Drilled, band 3" wide, 1" to each side, 2" above seed level
do	John Deere 245	1 front wheel	Rotating pan with plow	50 to 300	Corn, beans, etc.	Drilled, band 1" wide, about 1/2" directly above seed
Engineering Metal Products Co.	Chambers attach.	shoe only	Rotating pan with plow	-----	Cotton, corn, etc.	Hilled or drilled, band 1" to one side, 1 1/2" below seed level
Eureka Mower Co.	Eureka 2	1 front wheel	Star wheel	115 to 800	Corn, beans, etc.	Drilled, band at each side of row
Gantt Mfg. Co.	Gantt	1 front wheel	(a)	(a)	Cotton	Drilled, in furrow with seed
do	Gantt 1	1 rear wheel	Rotating agitator	(a)	Corn, beans, etc.	Drilled, band under seed
do	Gantt 4	1 rear wheel	Vibrator	(a)	Corn, beans, etc.	Drilled, band under seed
International Harvester Co.	McC-Deering	1 rear wheel	Rotating flat plate	50 to 350	Corn, beans, etc.	Drilled, in seed furrow
do	McC-Deering	1 front wheel	Rotating flat plate	50 to 350	Corn, beans, etc.	Drilled, in seed furrow
do	McC-D. 163 & 165	1 rear wheel	Vibrating open-end pan	75 to 350	Cotton, corn, etc.	Drilled, band under seed - depth adjustable
do	125 & 126	1 front wheel	(a)	(a)	Cotton, corn, etc.	Drilled, (a)
Minneapolis-Moline Power Imp. Co.	J G	1 rear wheel	Rotating pan with plow	0 to 700	Cotton, corn, etc.	Drilled, either under or in furrow with seed
do	O F	1 front wheel	Rotating pan with plow	0 to 700	Cotton, corn, etc.	Drilled, band under seed
do	Blackhawk	1 rear wheel	Rotating plate	(a)	Cotton, corn, etc.	Drilled, band 3" to each side, 1" above seed level
do	Blackhawk 160	1 front wheel	(a)	(a)	Cotton, corn, etc.	Drilled, band under seed
Oliver Farm Equipment Sales Co.	Short Boy 63	1 rear wheel	Rotating plate	(a)	Cotton, corn, etc.	Drilled, in furrow above seed
do	Oliver 6A & 7	1 rear wheel	Finger wheel	40 to 690	Cotton, corn, etc.	Drilled, in furrow under seed
do	Oliver 51, 52, 54	1 front wheel	(a)	(a)	Cotton, corn, etc.	Drilled, (a)
Sargent Osgood & Roundy Co.	Eclipse	1 rear wheel	Revolving blade, top delivery	50 to 600	Corn, beans, etc.	Drilled or hilled (band 6" long), 2" each side on seed level
do	King of Corn F	1 rear wheel	(a)	25 to 700	Corn, beans, etc.	Drilled or hilled (band 6" long), 2" each side on seed level
Southern Plow Co. (Dallas, Tex.)	Ledbetter 20	1 front wheel	Rotating pan with plow	50 to 500	Cotton, corn, etc.	Drilled, band under seed

12. RIGID-FRAME TWO-WHEEL RIDING TYPE PLANTERS AND LISTERS WITH FERTILIZER ATTACHMENTS

Manufacturer	Trade name or Catalog No.	General type of machine	Size, no of rows	General type of fertilizer dispenser	Rates in Lbs/A	Crops or Conditions	Placement of the fertilizer in the soil
Avery, B.F., & Sons Co.	Mr Bill 45 att. on #35	Ridge or list furrow	1 & 2 row	Vibrating open-end pan	(a)	Cotton, corn, etc.	Drilled, at one side of seed furrow
Case, J.I. Co	J Deere 111	Lister, tractor type	2 row	(a)	(a)	Corn	Drilled in row
Deere and Mansur Works	Iron Age 481	Ridge or list furrow	1 & 2 row	Rotating pan with plow	50 to 100	Cotton, corn, etc.	Drilled, $\frac{3}{4}$ " to sides, 1" above seed level
Farquhar, A.B., Co., Ltd.	Iron Age 491	Ridge or level	1 & 2 row	Endless belt	Wide range	Cotton, etc.	Drilled, 2" band, 2.5" to each side - Depth adj.
do	Farquhar	Ridge or level	2 row	Finger wheel	(a)	Corn, etc.	Drilled, (a)
International Harvester Co.	Tip-top 22 & 23	Ridge or list furrow	1 & 2 row	Rotating pan with plow	Max. 500	Cotton, corn, etc.	Drilled, 2-3" band 2" to one side, above seed level
Kelly, G.A., Plow Co.	Davy Crockett	Ridge or list furrow	1 row	(a)	(a)	Cotton, corn, etc.	Drilled, sides; deposited ahead of seed above
Manassah-Harris Co.	Manassah-Harris	Ridge or list furrow	1 & 2 row	Rotating flat plate	25 to 200	Cotton, corn, etc.	Drilled, sides and above seed
Oliver Farm Equip. Sales Co.	D-P 7	Ridge or list furrow	1 row	(a)	(a)	Cotton, corn, etc.	Drilled, sides; deposited ahead of seed above
Southern Plow Co. (Dallas, T)	Lebetter 8	Ridge or list furrow	1 row	Rotating pan with plow	50 to 500	Cotton, corn, etc.	Drilled, sides; deposited ahead of seed above

13. TWO-ROW ADJUSTABLE RUNNER-FRAME PLANTERS (corn belt type) WITH FERTILIZER ATTACHMENT - HORSE DRAWN

Manufacturer	Trade name or Catalog No.	General type of machine	Size, no of rows	General type of fertilizer dispenser	Rates in Lbs/A	Crops or Conditions	Placement of the fertilizer in the soil
Avery, B.F., & Sons Co.	Sure drop twin drive	Rotating pan with plow	(a)	Cotton, corn, etc.	(a)	Hill or drill, sides above seed	plain divider
Blount Plow Works	Blount	Rotating pan with plow	(a)	Cotton, corn, etc.	(a)	Drill, in furrow above seed	
Bradley David, Mfg. Wks	Bradley 497	Star wheel and agitator	(a)	Corn, beans, etc.	(a)	Drilled, in furrow above seed	
Case, J.I., Co.	33 Att. on 40 Pl.	Rotating pan with plow	25 to 800	Corn, beans, etc.	(a)	Hill or drill, band 6" long directly above seed	
do	34 Att. on 41 Pl.	Rotating pan with plow	25 to 800	Corn, beans, etc.	(a)	Hill or drill, 2" band 1" to each side $\frac{3}{4}$ " above seed level	
do	50 Att. on 42 Pl.	(a)	(a)	Cotton, corn, etc.	(a)	Drilled, band 1" to each side $\frac{3}{4}$ " above seed level	
do	56 Att. 42 & 42P Pl.	(a)	(a)	Cotton, corn, etc.	(a)	Drilled, band each side of row	
do	57 Att. on 42P Pl.	(a)	(a)	Cotton, corn, etc.	(a)	Hill or drill, band each side of row	
Deere & Mansur Works	J Deere 435; 999	Rotating pan with plow	75 to 250	Corn, beans etc.	(a)	Hill or drill, band 1 1/2" long, 1" to each side, $\frac{3}{4}$ " above seed level	
do	J Deere 436; 919	Rotating pan with plow	75 to 700	Corn, peas, etc.	(a)	Drilled, 1" band " to each side $\frac{3}{4}$ " above seed level	
Engineering Metal Prod. Corp	Chambers, runner, only	(a)	(a)	Cotton, corn, etc.	(a)	Hill or drill, 1" band 8" long, 1" to one side, $\frac{1}{4}$ " below seed level	
Farqua Mower Co.	Burke 4	Star wheel	115 to 800	Corn, beans, etc.	(a)	Drilled band each side of row	
Farqua Tools, Inc.	Hayes 44	(a)	(a)	Corn, beans, etc.	(a)	Hill or drill, short band at side of hill	
International Harvester Co.	McClelling 100 Sr	Rotating pan with plow	50 to 500	Corn, beans, etc.	(a)	Hill or drill, 1 1/2" band 6-8" long, 1" to each side, adj. 0-2" above seed level	
do	P & O 20 & 34	Star wheel	Max 400	Cotton, corn, etc.	(a)	Drilled, band each side of row	
Madison Plow Co.	Madison 19; Victor 20	Rotating plate	(a)	Corn, beans, etc.	(a)	Hill or drill, mixed with soil above seed	
Manassah-Harris Co.	Split-boot	Rotating flat plate	25 to 200	Corn, beans, etc.	(a)	Hill or drill, $\frac{3}{4}$ " band 8" long, 1 1/2" to each side, adj. seed level to surface	
do	Single boot	Rotating flat plate	25 to 200	Corn, beans, etc.	(a)	Hill or drill, $\frac{3}{4}$ " band 8" long, directly above adj. from seed to surface	
Minneapolis-Moline P. Imp Co	Moline 25 & 26	Rotating pan with plow	(a)	Corn, beans etc.	(a)	Hill or drill, at sides and behind hill	
do	Four-wheel	(a)	0 to 700	Corn, beans, etc.	(a)	Hill or drill, (a)	
Ohio Cultivator Co.	Blackhawk (several)	(a)	0 to 800	Cotton, corn, etc.	(a)	Hill or drill, (a)	
Oliver Farm Equip. Sales Co.	Oliver 98	Rotating pan with plow	(a)	Corn, beans etc.	(a)	Hill or drill, band at each side above seed level	
Rock Island Plow Co.	Rock Island 1 & 555	Star wheel	50 to 600	Corn, beans, etc.	(a)	Hill or drill, 1" band 6" long, 2" to each side, 1" above seed level	
Sargent, Osgood & Roundy Co.	Eclipse	Rev. blade-top delivery	50 to 600	Corn, beans, etc.	(a)	Hill or drill, band 6" long, 2" to each side, on seed level	

14. DISTRIBUTORS COMBINED WITH TRACTOR PLANTERS TWO OR MORE-ROWS

Manufacturer	Trade name or Catalog No.	General type of machine	Size, no of rows	General type of fertilizer dispenser	Rates in Lbs/A	Crops or Conditions	Placement of the fertilizer in the soil
Case, J.I. Co.	49 Att. on CCB40E planter	Tractor mounted, motor lift	4 row	Rotating pan	25 to 800	Corn, beans, etc.	Hill or drill 1, 2" band 11" long, 1" to each side, $\frac{3}{4}$ " above seed level
Deere & Mansur Works	250	Tractor mounted	2 row	Rotating pan	75 to 500	Cotton, corn, etc.	Drilled, band 1" wide, $\frac{3}{4}$ " to one side, 1" deep
do	CK-row GP 450	Tractor drawn	4 row	(a)	(a)	Corn, c	Hill or drill, band each side slightly above seed level
do	CK-row GP 301	Tractor mounted	3 row	Rotating pan with plow	(a)	Corn, c	Hill or drill 1, band each side lightly above seed level
Farquhar, A.B., Co., Ltd.	Iron Age 481 & 491	Tractor drawn	2, 3, 4 row	Endless belt	(a)	Cotton, beans, etc.	Drilled, 2" band, $\frac{3}{4}$ " to each side - depth adjustable
International Harvester Co.	Farmall 7 & 7A	Tractor mounted	2 & 4 row	Rotating pan	50 to 500	Cotton, corn etc	Hill or drill, band 1" wide, $\frac{3}{4}$ " to each side, 1" above seed level
do	Farmall Tractor drawn, lister planter	2 row	Rotating pan	Max. 400	Cotton, corn, etc.	Drilled, band at each side of row	
do	Farmall-12 (33A)	Tractor mounted	2 row	Rotating agitator	200 to 900	Cotton, corn, etc	Drilled, band at one side of row - depth adjustable
Minneapolis-Moline P. Imp Co	M-M CK-row	Tractor or drawn	4 row	(a)	(a)	Cotton, corn, etc	Hill or drill, (a)
Oliver Farm Equip Sales Co	Row crop	Tractor mounted	2 & 4 row	(a)	(a)	Cotton, corn, etc	Drilled, band either each side or above seed
do	Row crop	Tractor mounted, lister type	2 row	(a)	(a)	Cotton, corn, etc	Drilled, (a)

18. DISTRIBUTORS COMBINED WITH TRANSPLANTERS

Manufacturer	Trade name or Catalog No.	General type of machine	Size	General type of fertilizer dispenser	Rate in lbs/a	Crops or condition for which intended	Placement of the fertilizer in the soil
Empire Flow Co.	Piger & Dayton	Manual	1 row	(a)	(a)	Tomatoes, tobacco, etc.	Drilled, at one side of row
Farquhar, A.B., Co. Ltd.	Iron Age 500B	Manual	1 row	Endless belt	(a)	Tomatoes, tobacco, etc.	Drilled, band 2" to each side of row - depth adj.
do	Iron Age 500D	Manual	1 row	Descending scraper & feed wheel	150 to 2500	Tomatoes, tobacco, etc.	Drilled, mixed with soil in row
Hamilton Mfg. Co.	Hamilton H	Conveyor, mech. setting	1 row	(a)	(a)	Tomatoes, tobacco, etc.	Hill or drill, band each side, location adj.
Holland Colony Pl. Co.	Holland	Conveyor, mech. setting	1 row	Rotating flat plate	(a)	Tomatoes, tobacco, etc.	Drilled, band 1" wide - to each side, 3" below surface
Madison Flow Co.	Bemis	Manual	1 row	(a)	(a)	Tomatoes, tobacco, etc.	Drilled mixed in row - deposited on surface ahead of planting above
Massey-Harris Co.	Massey-Harris 3	Manual	1 row	Rotating plate, 3 deflectors	25 to 600	Tomatoes, tobacco, etc.	Drill 4, 2" band 4 to 6" either to one or each side and band over row, adj to 3" depth
do	Massey-Harris 3	Manual	1 row	Rotating plate, 3 deflectors	25 to 600	Tomatoes, tobacco, etc.	Drilled, in row deposited a furrow ahead of above
New Idea, Inc.	New Idea	Manual	1 row	Rotating plate, 3 deflectors	100 to 1500	Tomatoes, tobacco, etc.	Drilled, band 1 1/2" wide, 5" to each side and mixed in cent r, depth adj. 2 to 5"

19. DISTRIBUTORS COMBINED WITH CULTIVATORS AND HARROWS

Allen, L., & Co., Inc.	Planet Jr 230	Walking, 1 front wheel, 1 horse	1 row	Knocher	200 to 2000	Row crops, irrigated	Band or broadcast, 12-22" strip, covered or mixed
do	Planet Jr 230A	Walking, 2 front wheels, 1 horse	1 row	Knocher	200 to 2000	Row crops, flat land	Band or broadcast, 12-22" strip, covered or mixed
Avery, E.F. & Sons Co.	Vibrator	Walking, plow stock attach.	1 or 2 row	Vibrating 2-stream pan	(a)	Row crops	Two bands thru adj. tubes ahead of cultivator sweep
Blount Flow Works	Mount	Walking & riding, wheel, cult.	1 row	Rotating pan with plow	(a)	Row crops	Band either side of row in furrows, position adj.
Case, J.I., Co.	53 Att/Pls Cult	Walking & riding, wheel, 2 horse	1 row	(a)	(a)	Row crops	Band each side in furrows or mixed
do	44 Att on Cult.	Tractor mounted	2 row	(a)	(a)	Row crops	Band at one or each side of row
do	32 Att/ K Cult.	Riding: wheel, 2 horse	1 row	(a)	(a)	Row crops	Band each side of row in furrows, position adj.
do	51 Att/ CC Cult	Tractor mounted	2 row	(a)	(a)	Row crops	Band at one or each side of row
Deere & Manur Works	J Deere 64	Riding, wheel	2 horse	Rotating pan with plow	(a)	Sugar beets, beans, etc	Band each side of row in furrows, position adj.
do	KL 211	Riding, wheel	2 horse	Rotating pan with plow	(a)	Corn, similar row crops	Band each side of row in furrows, position adj.
do	John Deere	Tractor mounted	2 row	(a)	(a)	Cotton, etc	Band at side of row in furrows, position adj.
Fertiliser Attach. Co.	(a)	Walking, harrow	1 horse	Plunger	(a)	Row crops	(a)
Fresh Flo Pump & Mfg Co.	U and L	Attach. only, any cultivator	---	(a)	(a)	Row crops	Spots 12 to 48" apart, operated by hand or floating
Harriman Mfg. Co.	Howler	Walking cult. & plows	1 horse	Rotating agitator	50 to 500	Row crops	Either 2 bands or mixed with soil; 2 rows side-dr.
International Harv. Co.	How 4	Riding, wheel, 2 horse	1 row	Rotating pan	50 to 1000	Row crops	Band each side of row in furrows, position adj.
do	McClelling 3C	Riding, 3 wheel	2 horse	Rot. pan with adj. plow	50 to 400	Sugar beets, beans, etc	Band each side of row in furrows, position adj.
do	do	Tractor mounted	2 row	Rotating agitator	200 to 900	Cotton, etc	Band at each side of row in furrow, position adj.
Judson Mfg. Co.	Acme attach.	For riding cultivator	---	(a)	(a)	Row crops	Band at each side of row in furrow, position adj.
North Star Mfg. Co.	North Star	Attachment only for wheel cultivators	---	Endless link chain	(a)	Row crops	Band at each side of row in furrows, position adj.
Ohio Cultivator Co.	Ohio	Riding, wheel 2 horse	1 row	(a)	(a)	Row crops	Band at each side of row in furrows, position adj.
Oliver Farm Equipment S. Co.	(a)	(a)	(a)	(a)	(a)	Row crops	Band at side of row
Todd Co. Inc.	Todd 5	Walking, 2 wheel	1 horse	Vibrating pan	(a)	Sugar beets, corn, etc	Mixed with soil

20. DISTRIBUTORS COMBINED WITH DISC HARROWS

Parma Tools, Inc.	Peoria	Broadcast drill	7 to 10 ft (a)	(a)	(a)	General	Band in each disc furrow
-------------------	--------	-----------------	----------------	-----	-----	---------	--------------------------

21. DISTRIBUTORS COMBINED WITH PLOTS

Allen, S.L. & Co., Inc.	Planet Jr 215	Attachment for garden plow	1 row	Knocher	100 to 1500	Vegetable crops, etc	Band 1 to 3" wide in furrow 1 to 3" deep
American Dynamid Co.	Aero	Attachment, walking-plow stock	1 row	Gravity	25 to 200	Gen'l granular fert.	Band in plow furrow

22. DISTRIBUTING ATTACHMENTS FOR MANURE SPREADERS

Bloom Mfg. Co.	New Bloom	Lime attachment	(a)	Endless web & 4 disc spreaders	(a)	General, lime	Broadcast on surface
Case, J.I., Co.	Case 1	Lime attachment	(a)	(a)	(a)	General, lime	Broadcast on surface
International Harv. Co.	McC-D. 4A	Lime attachment	12 ft	Endless web & 2 plate-fan scatterers	500-16000	General, lime	Broadcast on surface
Litchfield Mfg. Co.	M	Lime attachment	8 ft	Endless web & rotating wing scatterers	(a)	General, lime	Broadcast on surface
Minneapolis-Moline P. Imp Co	Moline	Lime attachment	(a)	Endless web & 2 plate-fan scatterers	(a)	General, lime	Broadcast on surface
Oliver Farm Equip. Sales Co	Superior	Lime attachment	(a)	Endless web & 2 plate-fan scatterers	(a)	General, lime	Broadcast on surface
New Idea Inc.	New Idea	Lime attachment	(a)	Endless web & 2 plate-fan scatterers	(a)	General, lime	Broadcast on surface

23. DISTRIBUTING ATTACHMENTS FOR WATERING AND IRRIGATION SYSTEMS

Electric Sprayit Co.	Plantillizer	Hose nozzle	(a)	Soluble fertilizer cartridge	(a)	Lawns, etc garden hose	Broadcast on surface with water
do	Hydro mixing	Nozzle & liquid container	(a)	Vacuum syphon	(a)	Lawns, etc	Broadcast on surface with water
McClain Bros. Co.	Hydro-Mixer	Barrel, pump and mixer	(a)	Pumped into water line	(a)	Golf greens, etc.	Broadcast on surface with water
Schen Products Co., Ltd.	Priser	Bypass dispenser unit	(a)	(a)	60 to 480 lbs/hr	Gen'l, gravity irrigation	Row or broadcast with water
do	Schen	Venturi tube type	(a)	(a)	(a)	Gen'l, pres. irrig. system	Row or broadcast with water
do	Schen	Mixing unit	(a)	(a)	(a)	Lawns, garden hose	Broadcast on surface with water
Thompson O.E. & Sons	Thompson	Cert. barrel sprinkler	6 ft	Agitator & gravity flow	(a)	Gen'l, small areas	Broadcast on surface with water
Vax Corporation	Vax	Mixing cylinder in water line	(a)	Soluble fertilizer cartridge	(a)	Lawns, garden hose	Broadcast on surface with water

MANUFACTURER	ADDRESS	MANUFACTURER	ADDRESS	MANUFACTURER	ADDRESS
Acer & Whedon, Inc.	Medina, N.Y.	Gentl Manufacturing Co.	Macon, Ga.	Ontario Drill Co	East Rochester, N.Y.
A-C Manufacturing Co., Inc.	Pontiac, Ill.	Gilson Bolens Mfg. Co.	Port Washington, Wis.	Peck, S.H., & Sons	East Aurora, N.Y.
Acme Line Manufacturing Co.	Traverse City, Mich.	Goodell Co.	Antrim, N. H.	Pender Mfg. & Supply Co.	Raleigh, N.C.
Allen, S.L., & Co., Inc.	Philadelphia, Pa.	Greenville Manufacturing Co	Greenville, Ohio	Peoria Steel & Wire Co.	Peoria, Ill.
Aspinwall-Watson Co.	Houlton, Maine	Hamilton Manufacturing Co.	Hamilton, Mich.	Plant Food Appliance Co.	Waupaca, Wis.
American Cyanamid Co.	New York City	Hampshire Implement Co.	Hatfield, Mass.	Portable Elevator Mfg. Co.	Bloomington, Ill.
Avery, B.F., & Sons	Louisville, Ky.	Haines, W.D.	Haddonfield, N.J.		
Bloom Manufacturing Co.	Nashua, Iowa	Hardy & Newsom, Inc.	La Grange, N.C.	Red Cross Manufacturing Co.	Bluffton, Ind.
Blount Flow Works	Evansville, Ind.	Harrington Mfg. Co.	Lewiston, N.C.	Rock Island Flow Co.	Rock Island, Ill.
Blue, John	Laurinburg, N.C.	Harriman Mfg. Co. (Oliver)	Harriman, Tenn.	Root Manufacturing Co.	Cleveland, Ohio
Bradley, David, Mfg. Works	Bradley, Ill.	Hoelt & Co., Inc.	North Chicago, Ill.	Ruhm Phosphate & Chemical Co	Mount Pleasant, Tenn.
Browning & Son	Utica, N.Y.	Holden Co., Inc.	Peoria, Ill.		
Burch Corporation	Crestline, Ohio	Holland Celery Planter Co.	Holland, Mich.	Salem Tool Co.	Salem, Ohio
Caledonia Bean Harvester Works	Caledonia, N.Y.	International Harvester Co.	Chicago, Ill.	Sargent, Osgood & Roundy Co.	Randolph, Vt.
Camp, E.N., & Sons, Co.	Moreland, Ga.			Scheu Products Co., Ltd.	Los Angeles, Calif.
Campbell-Hausfeld Co.	Harrison, Ohio	Judson Manufacturing Co.	Philadelphia, Pa.	Sears Roebuck & Co.	Philadelphia, Pa.
Case, J.I., Co.	Racine, Wis.			Self Manufacturing Co.	Twin Falls, Idaho
Champion Corporation	Hammond, Ind.	Kelley, G.A., Flow Co.	Longview, Texas	Smith Agri. Chemical Co.	Columbus, Ohio
Cole Manufacturing Co.	Charlotte, N.C.	King Drill Mfg. Co.	Beatrice City, Nebr.	Southern Flow Co.	Columbus, Ga.
Covington, W.F.	Headland, Ala.	King Flow Co.	Atlanta, Ga.	Southern Flow Co.	Dallas, Texas
Crown Manufacturing Co.	Phelps, N.Y.			Standard Equipment Co.	Cedar Rapids, Iowa
Cutaway Harrow Co.	Higganum, Conn.	LeRoy Flow Co.	LeRoy, N.Y.	Swift & Co.	Chicago, Ill.
Cyclone Seeder Co.	Urbane, Ind.	Lilliston Implement Co.	Albany, Ga.	Syracuse Chilled Flow Co (Deere)	Syracuse, N.Y.
		Litchfield Mfg. Co.	Waterloo, Iowa		
Deere & Mansur Works	Moline, Ill.			Tennessee Corp.	New York City
		Madison Flow Co.	Madison, Wis.	Thompson, O.E., & Sons	Ypsilanti, Mich.
Eagle Machine Co.	Lancaster, Ohio	Marvel Seeder Co., Inc.	Minneapolis, Minn.	Todd Co., Inc.	Norfolk, Va.
Eastern States Farmers Exchange	Springfield, Mass.	Messey-Harris Co.	Racine, Wis.		
Eastern Steel Products Ltd.	Preston, Ontario, Canada	Masters Planter Co., Inc.	Chicago, Ill.	Van Brunt Mfg. Co. (Deere)	Horicon, Wis.
Electric Sprayit Co.	South Bend, Ind.	McClellan Bros.	Canton, Ohio	Vex Corporation	Chicago, Ill.
Ellis Keystone Agri. Works	Pottstown, Pa.	McKay, John A., Mfg. Co.	Dunn, N.C.		
Empire Flow Co.	Cleveland, Ohio	Meronek Manufacturing Co.	Stevens Point, Wis.	Wade, R.M., & Co.	Portland, Ore.
Engineering Metal Products Corp	Indianapolis, Ind.	Minneapolis-Moline Power Imp. Co	Minneapolis, Minn.	Waterman, Adolph C.	Indianapolis, Ind.
Eureka Mower Co.	Utica, N.Y.			Wayne Agricultural Works Inc	Goldsboro, N.C.
		New Idea, Inc.	Coldwater, Ohio	White's S.R. Sons, Inc.	Norfolk, Va.
Farm Tools, Inc.	Mansfield, Ohio	New Way Spreader Co.	Mansfield, Ill.	Whitehurst, R.W., Mfg. Corp.	Norfolk, Va.
Farquhar, A.B., Co. Ltd	York, Pa.	North Star Mfg Co	Anoka, Minn.		
Fertilizer Attachment Co.	Zealand, Mich.				
Foots, J.B., Foundry Co.	Fredericktown, Ohio	Ohio Cultivator Co.	Bellevue, Ohio		
Fresh Flo Pump & Mfg. Co.	Indianapolis, Ind.	Oliver Farm Equipment Sales Co.	Springfield, Ohio		

